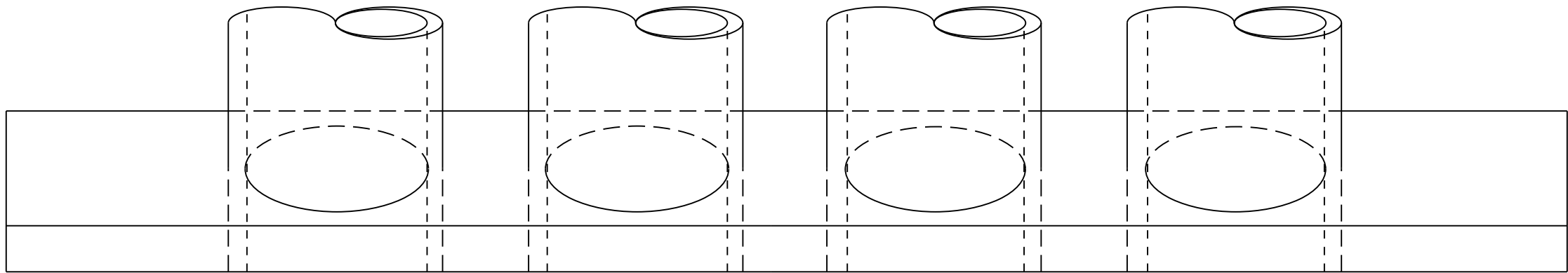


PROJECT REFERENCE NO.	SHEET NO.
R-4463A	2C-2

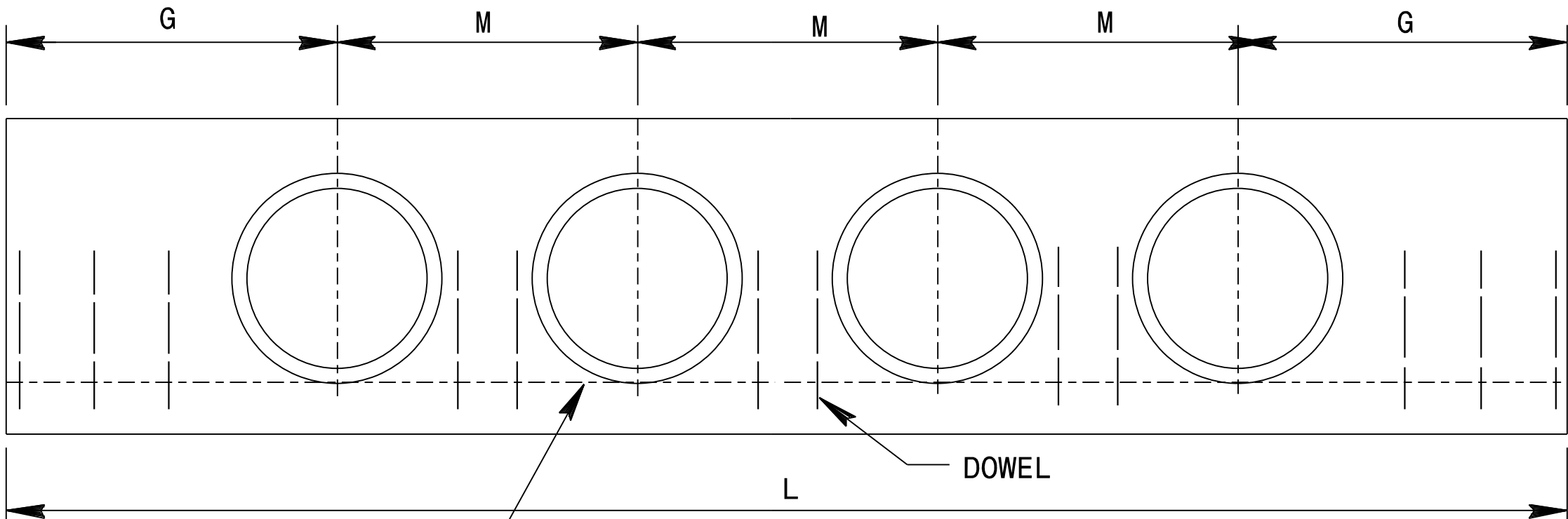
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
**CONCRETE ENDWALL FOR TRIPLE AND
QUADRUPLE PIPE CULVERTS**
15" THRU 48" PIPE - 90° SKEW

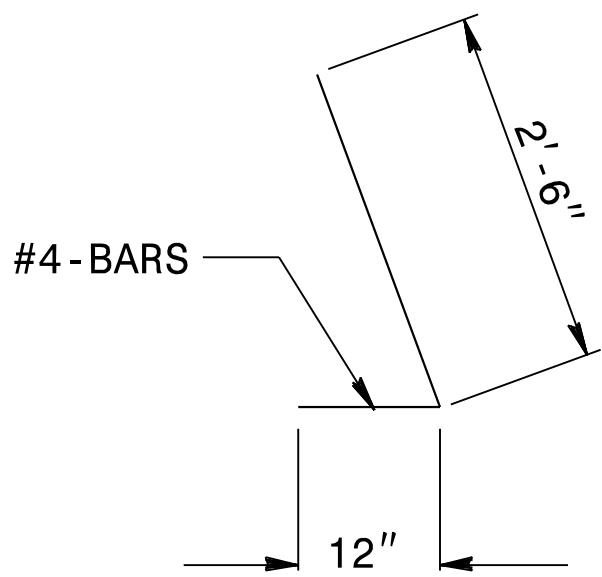
SHEET 1 OF 3
838D01



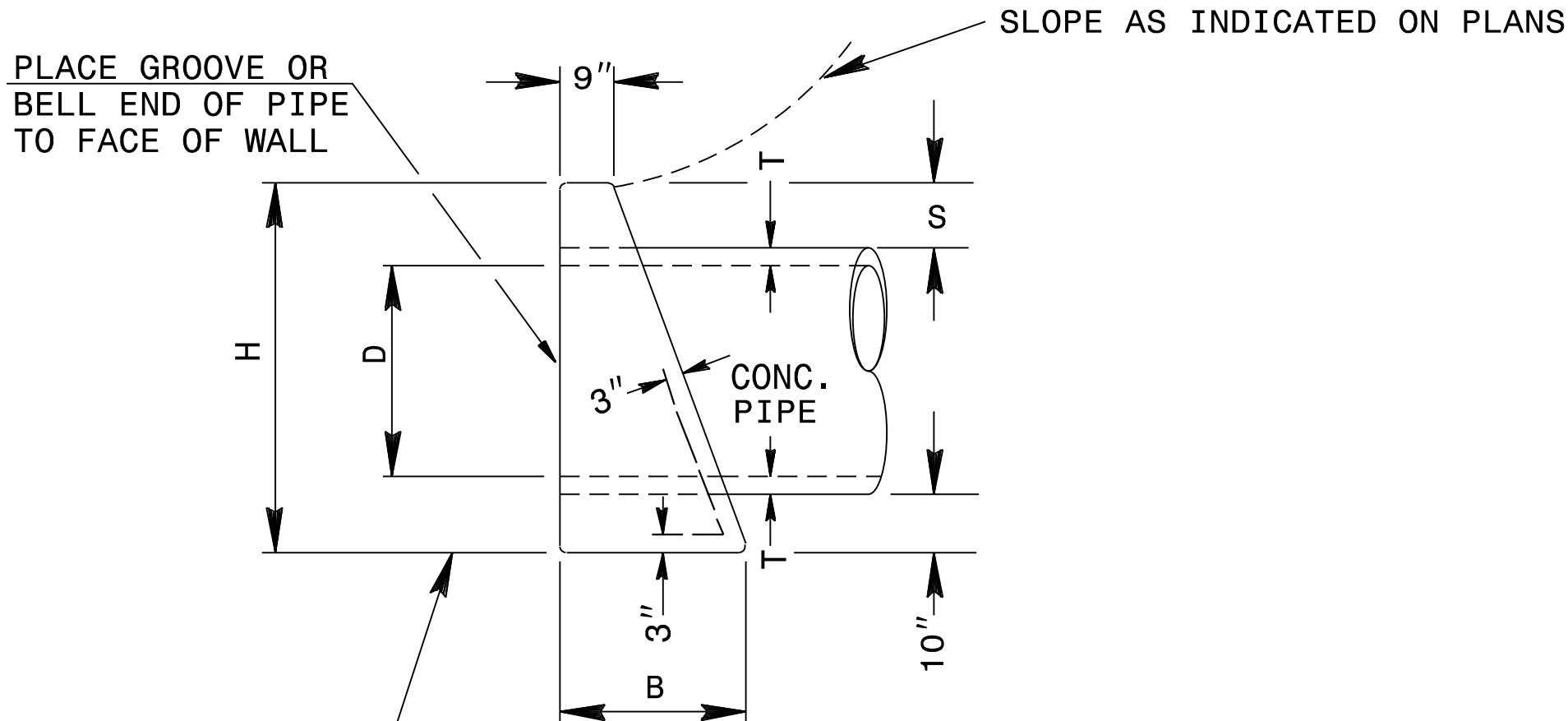
PLAN



ELEVATION



DOWEL
BAR - "X"



END ELEVATION

DIMENSIONS AND CONCRETE QUANTITIES										
USING CONCRETE PIPE										
D	COMMON DIMENSIONS					TRIPLE PIPE		QUADRUPLE PIPE		M
	H	B	G	T	S	L	YD ³	L	YD ³	
15"	3'-3"	1'-8"	2'-9"	2¼"	9½"	9'-10"	1.3	12'-0"	1.6	2'-2"
18"	3'-7"	1'-10"	3'-2"	2½"	10"	11'-6"	1.6	14'-1"	1.9	2'-7"
24"	4'-2"	2'-1"	4'-0"	3"	10"	14'-10"	2.5	18'-3"	3.0	3'-5"
30"	5'-0"	2'-6"	4'-7"	4¼"	11½"	17'-8"	3.9	21'-11"	4.7	4'-3"
36"	5'-8"	2'-8"	5'-6"	4¾"	12½"	21'-0"	5.6	26'-0"	6.7	5'-0"
42"	6'-2"	3'-1"	6'-4"	5¼"	11½"	24'-4"	7.5	30'-2"	9.0	5'-10"
48"	6'-9"	3'-5"	7'-2"	5¾"	11½"	27'-8"	10.0	34'-4"	12.0	6'-8"

* NOTE: SEE ROADWAY STANDARD DRAWING 838.01 SHEET 3 OF 3 FOR GENERAL NOTES

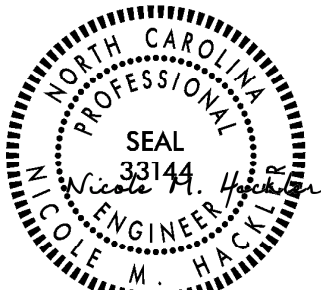
DOWELS IN ENDWALL WITH REINFORCED CONCRETE PIPE																		
LOC.	PIPE	TRIPLE PIPE								QUADRUPLE PIPE								
	DIA.	15"	18"	24"	30"	36"	42"	48"		15"	18"	24"	30"	36"	42"	48"		
	BARS	"X"	"X"	"X"	"X"	"X"	"X"	Y*	"X"	Y*	"X"	"X"	"X"	"X"	"X"	Y*	"X"	Y*
G	QTY.	2	2	3	3	4	4		5		2	2	3	3	4	4	5	
M(s)	QTY.	2	2	4	4	4	4	2	6	2	3	3	6	6	6		9	2
G	QTY.	2	2	3	3	4	4		5		2	2	3	3	4	4	5	
TOTAL LBS.		14	14	23	23	28	100		119		17	17	28	28	33	122		147

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: E.E. WARD DATE: _____
MODIFIED BY: K.A. Kempf DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: details/kkempf/english/838d0101.dgn



5/22/2025